REMARKS/ARGUMENTS

This reply is responsive to an office action mailed on November 17, 2005. Reconsideration and allowance of the application and presently pending claims 1-13 are respectfully requested.

Present Status of the Patent Application

Claims 1-13 remain pending in the present application. Claims 1, 2, 4, and 7 have been amended. The amendments to the claims were made to render them more clear and definite and to emphasize the patentable novelty thereof. There is no intent to surrender equivalence.

Response to Claim Rejections Under 35 U.S.C. §103(a)

Claims 1-13 have been rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Lazarus et al. (U.S. Patent No. 6,430,539 in view of Zhang article entitled "Classification Trees for Multiple Binary Responses." Applicants respectfully traverse this rejection.

The Lazarus patent discloses a predictive modeling of consumer behavior by applying consumer transactional data to predictive models associated with merchant segments. The predictive model clusters merchant vectors representing specific merchants to form merchant segments which are trained using consumer transaction data in selected past time periods to predict spending in subsequent time periods. The Zhang article describes a classification tree methodology.

Independent Claim 1

Independent claim 1, as amended, is allowable for at least the reason that Lazarus and Zhang do not disclose, teach, or suggest "generating a plurality of classification trees based on behavioral and demographic data for a set of consumers," "searching said consumer clusters sets for an optimal consumer cluster set that optimizes a measure of the behavioral and demographic data," or "consumers in each cluster of said plurality of clusters have substantially similar behavioral and demographic characteristics to each other and different behavioral or demographic characteristics from consumers in all other clusters of said plurality of clusters."

In this regard, and with reference to the teaching of the Lazarus patent, the Office Action has cited col. 1, lines 35-47; col. 3, lines 1-6 and lines 55-57; col. 4, lines 12-42; col. 5, lines 28-31, col. 9, line 55 through col. 10, line 12; and col. 12, lines 57-62 as follows:

> ... The ultimate goal of this type of approach, whether acknowledged or not, is to predict consumer spending in the future. The assumption is that consumers will spend money on their interests, as expressed by things like their subscription lists and their demographics. Yet, the data on which the determination of interests is made is typically only indirectly related to the actual spending patterns of the consumer. For example, most publications have developed demographic models of their readership, and offer their subscription lists for sale to others interested in the particular demographics of the publication's readers. But subscription to a particular publication is a relatively poor indicator of what the consumer's spending patterns will be in the future.
> (col. 1, lines 35-47)

> ... system and method of analyzing and predicting consumer financial behavior that uses historical, and time-sensitive, spending patterns of individual consumers to create both meaningful ***groupings (segments) of merchants*** which accurately reflect underlying consumer interests, and a predictive model of consumer spending patterns for each of the ***merchant segment***. ...
> (col. 3, lines 1-6)

Preferably, each consumer is also given a profile that includes various demographic data, and summary data on spending habits. ... (col. 3, lines 55-57)

Given the ***merchant segments***, the present invention then creates a predictive model of future spending in each ***merchant segment***, based on transaction statistics of historical spending in the ***merchant segment*** by those consumers who have purchased from merchants in the segments, in other segments, and data on overall purchases. In one embodiment, each predictive model predicts spending in a ***merchant cluster*** in a predicted time interval, such as 3 months, based on historical spending in the cluster in a prior time interval, such as the previous 6 months. During model training, the historical transactions in the merchant cluster for consumers who spent in the cluster, is summarized in each consumer's profile in summary statistics, and input into the predictive model along with actual spending in a predicted time interval. Validation of the predicted spending with actual spending is used to confirm model performance. The predictive models may be a neural networks, or other multivariate statistical model.

This modeling approach is advantageous for two reasons. First, the predictive models are specific to ***merchant clusters*** that actually appear in the underlying spending data, instead of for arbitrary classifications of merchants such as SIC classes. Second, because the consumer spending data of those consumers who actually purchased at the merchants in the ***merchant clusters*** is used, they most accurately reflect how these consumer have spent and will spend at these merchants.

To predict financial behavior, the consumer profile of a consumer, using preferably the same type of summary statistics for a recent, past time period, is input into the predictive models for the different ***merchant clusters***. ...
(col. 4, lines 11-42)

First, the number of times that each pair of merchants co-occur with one another in the transaction data is determined. The underlying intuition here is that merchants whom the consumers' behaviors indicates as being related will occur together often, whereas unrelated merchants do not occur together often. For example, a new mother will likely shop at children's clothes stores, toy stores, and other similar merchants, whereas a single young male will likely not shop at these types of merchants. The identification of merchants is by counting occurrences of merchants' names in the transaction data. The merchants' names may be normalized

to reduce variations and equate different versions of a merchant's name to a single common name.

Next, a relationship strength between each pair of merchants is determined based on how much the observed co-occurrence of the merchants deviated from an expected co-occurrence of the merchant pair. The expected co-occurrence is based on statistical measures of how frequently the individual merchants appear in the transaction data or in co-occurrence events. Various relationship strength measures may be used, based on for example, standard deviations of predicted co-occurrence, or log-likelihood ratios.

The relationship strength measure has the features that two merchants that co-occur significantly more often than expected are positively related to one another; two merchants that co-occur significantly less often than expected are negatively related to one another, and two merchants that co-occur about the number of times expected are not related.

The relationship strength between each pair of merchants is then mapped into the vector space. This is done by determining the desired dot product between each pair of merchant vectors as a function of the relationship strength between the pair of merchants. This step has the feature that merchant vectors for positively related merchants have a positive dot product, the merchant vectors for negatively related merchants have a negative dot product, and the merchant vectors for unrelated merchants have a zero dot product.
(col. 5, lines 26-65)

Major categories 202 describe how the customers in a ***merchant segment*** typically use their accounts. Uses include retail purchases, direct marketing purchases, and where this type cannot be determined, then other major categories, such as travel uses, educational uses, services, and the like. Minor categories 204 describe both a subtype of the major category (e.g. subscriptions being a subtype of direct marketing) or the products or services purchased in the transactions (e.g. housewares, sporting goods, furniture) commonly purchased in the segment. Demographics information 206 uses account data from the consumers who frequent this segment to describe the most frequent or average demographic features, such as age range or gender, of the consumers. Geographic information 208 uses the account data to describe the most common geographic location of transactions in the segment. In each portion of the segment description 210 one or more descriptors may be used (i.e. multiple major, minor, demographic, or geographic descriptors). This naming convention is much more powerful

and fine-grained than conventional SIC classifications, and provides insights into not just the industries of different merchants (as in SIC) but more importantly, into the geographic, approximate age or gender, and lifestyle choices of consumers in each segment.

The various types of segment reports are further described in section I. Reporting Engine, below.

B. System Overview

Turning now to FIG. 4a there is shown an illustration of a system architecture of one embodiment of the present invention during operation in a mode for predicting consumer spending. System 400 includes begins with a data preprocessing module 402, a data postprocessing module 410, a profiling engine 412, and a reporting engine 426. Optional elements include a segment transition detection engine 420 and a targeting engine 422. System 400 operates on different types of data as inputs, including consumer summary file 404 and consumer transaction file 406, generates interim models and data, including the consumer profiles in profile database 414, merchant vectors 416, merchant segment predictive models 418, and produces various useful outputs including various segment reports 428-432.
(col. 9, line 55 through col. 10. line 28)

... The customer or the financial institution may supply the additional demographic fields which are deemed to be of informational or of predictive value. Examples of demographic fields include age, gender and income; other demographic fields may be provided, as desired by the financial institution.
(col. 12, lines 57-62)

In summary then, the present invention provides a variety of powerful analytical methods which predict consumer financial behavior in discretely defined merchant segments, and with respect to predetermined time intervals. The clustering of merchants in merchant segments allows analysis of transactions of consumers in each specific segment, both historically, and in the predicted period to identify consumers of interest. Identified consumers can then be targeted with promotional offers precisely directed at merchants within specific segments.
(col. 39, lines 44-52)

(emphasis added)

In this regard, and with reference to the teaching of the Zhang article, the Office Action has cited page 181, section 2.2 and Figures 3-5 as follows:

2.2 Basics of the Tree-Based Technique

> Some familiarity with the work of Breiman et al. (1984) is assumed. For the sake of self-completeness, a brief introduction to the tree paradigm is given. Figure 1 displays a simple tree structure that has three layers of nodes. The first layer always consists of the unique root node—the circle on the top. One internal (the circle) and one terminal (the box) node are placed on the second layer. Finally, two terminal nodes (boxes) are in the last layer. Note that the root and the internal nodes are both marked with circles and are connected to the two nodes in the next layer, which are called left and right daughter nodes. The answers to the following three questions are critical to the understanding of the tree-based technique:
>
> - What are the contents of the nodes?
> - How are the parent and the offspring nodes related to each other?
> - How is a terminal node declared?
>
> The first two questions are answered in Sections 2.3 and 2.4, and the last question is addressed in Section 2.5.
> (page 181, section 2.2)

As can be verified from a review of these cited portions of Lazarus and Zhang, there is no teaching or disclosure of "consumers in each cluster of said plurality of clusters have substantially similar behavioral and demographic characteristics to each other and different behavioral or demographic characteristics from consumers in all other clusters of said plurality of clusters." As stated repeatedly above, Lazarus merely discloses merchant clusters or merchant segments. In fact at col. 4, line 30, Lazarus teaches away from consumer clusters by stating "the predictive models are specific to merchant clusters."

Regarding the use of consumer information, Lazarus discloses at col. 3, lines 1-6 a "system and method of analyzing and predicting consumer financial behavior that uses historical, and time-sensitive, spending patterns of individual consumers to create both meaningful groupings (segments) of merchants ... and a predictive model of

consumer spending patterns for each of the merchant segment." On the other hand, Applicants do not predict consumer spending patterns for each merchant segment, but instead Applicants classify consumers in clusters.

Furthermore, Lazarus discloses at col. 4, lines 38-41 "the consumer profile of a consumer ... is input into the predictive models for the different merchant clusters." The consumer profiles are **not** arranged into consumer clusters having similar characteristics, but are used to create **merchant clusters** of related merchants according to the consumers' spending habits. Zhang adds nothing is this area, because it deals only with classification trees. Therefore, Lazarus and Zhang do not disclose "consumers in each cluster of said plurality of clusters have substantially similar behavioral and demographic characteristics to each other and different behavioral or demographic characteristics from consumers in all other clusters of said plurality of clusters."

As can be further verified from a review of these cited portions of Lazarus and Zhang, there is no teaching or disclosure of "generating a plurality of classification trees based on behavioral and demographic data for a set of consumers." The Office Action acknowledges that Lazarus does not disclose this element, but that "Zhang, on the other hand, discloses the use of creating a plurality of classification tree[s] base[d] on demographics and behavioral data." However, a careful review of Section 2.2 and Figures 3-5 of Zhang only discloses the creation of classification trees using environmental data and, in only one instance, demographic data (Fig. 5, Node 4, Male or Female). The use of behavioral data was not disclosed at all in Zhang. Furthermore, the data used in Zhang was for occupants of buildings, not consumers. The cited portions of Zhang merely disclose generating a plurality of classification trees based on environmental data and one piece of demographic data for occupants of buildings, not "generating a plurality of classification trees based on behavioral and demographic data for a set of consumers." Therefore, Lazarus and Zhang do not

disclose "generating a plurality of classification trees based on behavioral and demographic data for a set of consumers."

As can be still further verified from a review of these cited portions of Lazarus and Zhang, there is no teaching or disclosure of "searching said consumer clusters sets for an optimal consumer cluster set that optimizes a measure of the behavioral and demographic data." The Applicant respectfully submits that this element was not addressed in the Office Action and that the Office Action merely states that "Lazarus provides a solution that defined cluster based jointly on behavior and demographics." The Applicant respectfully submits that even this statement is not disclosed in Lazarus. As discussed previously, Lazarus deals with merchant clusters or segments, not consumer clusters. The merchant clusters of Lazarus are created using the behavioral data or the spending habits of consumers, no demographic data is used to create the merchant clusters. The demographic data of the consumers in each merchant cluster is merely utilized to describe the consumers in that particular merchant cluster, not to create the merchant cluster. Lazarus does not even disclose any "defined cluster based jointly on behavior and demographics" as stated in the Office Action, let alone the "searching said consumer clusters sets for an optimal consumer cluster set that optimizes a measure of the behavioral and demographic data." Zhang adds nothing is this area, because it deals only with classification trees. Therefore, Lazarus and Zhang do not disclose "searching said consumer clusters sets for an optimal consumer cluster set that optimizes a measure of the behavioral and demographic data."

The Zhang article relates to classification trees used for "many applications for which an array of health related symptoms are of primary interest." See the introductory paragraph of page 1 of the Zhang article. Thus, the Zhang article does not relate to demographic and behavior data of consumers or merchant clusters, and is clearly drawn from non-analogous art. Also, there is no teaching, suggestion or motivation to combine the teachings of Lazarus regarding clusters of merchants, with

the tree structure disclosed in the Zhang article regarding health related issue. To state that the prior art would be provided with "the enhanced capability of increasing the accuracy of prediction" by utilizing the teachings of the Zhang art is not a proper combination of the references, because it is a statement made with the benefit of hindsight after reviewing the above-identified application. There must be some teaching, suggestion or motivation found in the art which would lead to such a combination. But, none is found in the prior art.

Also, for sake of argument, if the teachings of Lazarus and Zhang were somehow combined, the resulting hypothetical method would still not anticipate the claimed subject matter. As mentioned in the foregoing discussion, nothing in either reference, or in the background prior art disclosed in the subject application, suggests or discloses the following:

1) "generating a plurality of classification trees based on behavioral and demographic data";

2) "each of said classification trees producing a consumer cluster set";

3) "searching said consumer cluster sets for an optimal consumer cluster set"; and

4) "consumers in each cluster of said plurality of clusters have substantially similar behavioral and demographic characteristics to each other and different behavioral or demographic characteristics from consumers in all other clusters of said plurality of clusters."

Lazarus, on the other hand, teaches:

1) a quasi-orthogonal set of vectors in a merchant vector space (col. 3, lines 32-35) and not "generating a plurality of classification trees" – no trees

being suggested. Zhang merely teaches classification trees using environmental data.

2) merchant clusters (col. 3, lines 47 and 48) and no suggestion of "a consumer cluster set";

3) no suggestion of searching a consumer cluster set; and

4) no suggestions of consumer clusters, and no suggestions of both behavioral and demographic characteristics being similar as to the consumer clusters.

Accordingly, the rejection is deficient in these areas. Notwithstanding, the undersigned has reviewed the entirety of the Lazarus patent and Zhang article and has failed to identify any such teachings anywhere within these references. Accordingly, the Lazarus patent and Zhang article fail to teach or disclose the invention as defined by claim 1, and the rejection of claim 1 should be withdrawn.

Independent Claim 4

Independent claim 4, as amended, is allowable for at least the reason that Lazarus and Zhang do not disclose, teach, or suggest "means for generating a plurality of classification trees based on behavioral and demographic data for a set of consumers," "means for searching said consumer clusters sets for an optimal consumer cluster set that optimizes a measure of the behavioral and demographic data," or "consumers in each cluster of said plurality of clusters have substantially similar behavioral and demographic characteristics to each other and different behavioral or demographic characteristics from consumers in all other clusters of said plurality of clusters" as described above regarding claim 1. Accordingly, the Lazarus patent and

Zhang article fail to teach or disclose the invention as defined by claim 4, and the rejection of claim 4 should be withdrawn.

Independent Claim 7

Independent claim 7, as amended, is allowable for at least the reason that Lazarus and Zhang do not disclose, teach, or suggest "a partitioning module adapted to create classification trees to define consumer clusters based on behavioral and demographic data for a set of consumers" or "said partitioning module generates an optimal classification tree that optimizes a measure of the behavioral and demographic data resulting in a plurality of consumer clusters with consumers in each cluster of said plurality of clusters having a substantial similar behavioral and demographic characteristics to each other and different behavioral and demographic characteristics from consumers in all other clusters of said plurality of consumers" as described above regarding claim 1. Accordingly, the Lazarus patent and Zhang article fail to teach or disclose the invention as defined by claim 7, and the rejection of claim 7 should be withdrawn.

Dependent Claims

Dependent claims 2 and 3, 5 and 6, and 8-13 are believed to be allowable for at least the reason that these claims depend from allowable independent claims 1, 4, and 7, respectively. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Response to Remark Section of the Office Action

The Remark section of the Office Action contains further interpretations of the Lazarus patent and the Zhang article. The Applicant respectfully submits that these interpretations are not consistent with their respective documents. In particular, the Office Action states the following in paragraphs (A) and (B) on pages 6 and 7:

> ... In particular, the Lazarus system is related to analysis of consumer financial behavior by determining consumer interests based on consumer demographic information. Lazarus discloses the use of creating a class membership function for each consumer, which describes how strongly the consumer is associated with each segment and where the membership function can be weighted based on the spending habits are most similar to the merchants in the cluster, thereby allowing very specific and accurate targeting of promotions (col. 4, lines 46-62). Lazarus discloses the use of creating a cluster based on the similarity behavioral and demographic characteristics (col. 10, lines 59-64; col. 12, lines 1-4). It is clear that, in col. 27, lines 33-col. 28, line 23, Lazarus creates clusters having similar behavioral and demographic characteristics to each other and different behavioral or demographic characteristics from consumers in all other clusters of said plurality of clusters.
> (paragraph (A))
>
> ... In particular, the Lazarus system is related to analysis of consumer financial behavior by determining consumer interests based on consumer demographic information. Lazarus discloses the use of creating a class membership function for each consumer, which describes how strongly the consumer is associated with each segment and where the membership function can be weighted based on the spending habits are most similar to the merchants in the cluster, thereby allowing very specific and accurate targeting of promotions (col. 4, lines 46-62), while Zhang's system is directed to a method to analysis building related occupant complaint syndrome based on a recently collected large database throughout the world in office building, hospitals, and so forth, using basics of the tree based technique. It is clear that Lazarus' system can be modified to use the classification tree methodology disclosed by Zhang.
> (paragraph (B))

Dissecting each of the above sections of these paragraphs, the first sentence in the above section of paragraph (A) states that "the Lazarus system is related to analysis of consumer financial behavior by determining consumer interests based on consumer demographic information." Applicant respectfully submits that Lazarus does not determine "consumer interests based on **consumer demographic information**," but "[p]redictive modeling of consumer financial behavior is provided by application of **consumer transaction data** to predictive models associated with merchant segments."

(first sentence of Abstract) In fact, consumer transaction data or consumer spending is mentioned at least five times in the Abstract alone, while consumer demographic data is not mentioned at all. Furthermore, the second sentence above further illustrates this fact by stating the "spending habits" of the consumer are utilized, not demographic data.

The second sentence in the above section of paragraph (A) states that "Lazarus discloses the use of creating a class membership function for each consumer, which describes how strongly the consumer is associated with each segment and where the membership function can be weighted based on the spending habits are most similar to the merchants in the cluster, thereby allowing very specific and accurate targeting of promotions (col. 4, lines 46-62)." The Applicant is not aware of how this applies to the present invention, since the clusters and segments referenced above refer to merchant clusters and segments, not consumer clusters, and the class membership function applies to individual consumers, not clusters of consumers. Clearly, merchant clusters are not equivalent to consumer clusters.

The third sentence in the above section of paragraph (A) states that "Lazarus discloses the use of creating a cluster based on the similarity behavioral and demographic characteristics (col. 10, lines 59-64; col. 12, lines 1-4)." The col. 10 reference is discussing relationships between merchant clusters, not consumer clusters. The col. 12 reference is once again discussing merchant segments, not consumer clusters, and only transactions of consumers, not demographic data, in the analysis of the merchant segments.

The fourth and last sentence in the above section of paragraph (A) states that "[i]t is clear that, in col. 27, lines 33-col. 28, line 23, Lazarus creates clusters having similar behavioral and demographic characteristics to each other and different behavioral or demographic characteristics from consumers in all other clusters of said

plurality of clusters." A careful reading of this section reveals two different clustering approaches to create merchant clusters segments, not consumer clusters, the first using merchant vectors and the second using consumer vectors. In the first approach, the merchant vectors are used to create merchant clusters or segments, not consumer clusters, and merchant clusters are obviously not equivalent to consumer clusters. In the second approach, a consumer vector is created for an individual consumer based on the "customer account's transaction data." A number of the consumer vectors may be clustered to create a merchant vector based on "their purchasing behavior." Related merchant vectors may be clustered to form merchant segments, not consumer clusters. Even if the merchant vectors could be considered consumer clusters, no where in this section (or anywhere else in Lazarus) does it state that the individual consumer vectors can only be included in one merchant vector. Furthermore, the creation of the consumer vectors, merchant vectors, and merchant segments are accomplished only using transactional or purchasing data, no use of demographic data is disclosed.

Regarding the Lazarus patent, the above discussion demonstrates how the interpretation of the method and system of Lazarus utilized by the Office Action is flawed and is clearly not supported by the text of Lazarus, even the sections specifically referenced by the Office Action. This flawed interpretation appears to be more closely aligned with the present invention than the method and system of Lazarus.

The first sentence and the first half of the second sentence in the above section of paragraph (B) are identical to the first and second sentences of paragraph (A) and the same reasoning regarding misinterpretation as described above applies there. The second part of the second sentence and the third sentence are stated as follows: "while Zhang's system is directed to a method to analysis building related occupant complaint syndrome based on a recently collected large database throughout the world in office building, hospitals, and so forth, using basics of the tree based technique. It is clear that Lazarus' system can be modified to use the classification tree methodology

disclosed by Zhang." Since Lazarus discloses the use transactional or behavioral data to generate merchant clusters and Zhang discloses the use of environmental data to analyze health related symptoms of the occupants of a building, the Applicant respectively contends that it is **not** "clear" to combine Lazarus and Zhang. Furthermore, Zhang's classification trees are created using a plurality of questions to generate a plurality of terminal nodes, while Lazarus derives merchant segments from sorting consumer transactional data, not a series of questions. Therefore, not only should the Lazarus patent and the Zhang article not be combined due to different subject matter, but the classification tree methodology of Zhang can not even be applied to the system and method of Lazarus.

The Office Action needs to provide justification for the combination of Lazarus and Zhang, more than just stating "[i]t is clear." Notwithstanding, the Applicant submits the following example showing how multiple classification trees, not a single classification tree, would be necessary to generate the merchant clusters of Lazarus in a very simple case (only three consumers C1, C2, & C3 and four merchants W, X, Y, & Z). Transactional data for the three consumers shows that consumer C1 makes purchases at merchants W, X, & Y; consumer C2 at merchants W, X, & Z; and consumer C3 at merchants X, Y, & Z. Using very basic visual sorting, it is obvious that three potential merchant clusters exist in this simple example – merchant clusters W & X (common between consumers C1 & C2), X & Y (common between consumers C1 & C3), and X & Z (common between consumers C2 & C3).

However, generating these three merchant clusters using a single classification tree in accordance with Zhang would be impossible, and using multiple classification trees to generate the three merchant clusters would be contrary to the teachings of Zhang. Figs. 1-3 shown three classification trees used to generate the three merchant clusters in this example. In Fig. 1 a first classification tree shows the generation of the merchant cluster W & X. At node 1 the transactional data is subjected to the question

regarding a purchase at merchant W. Nodes 2 and 3 ask the question regarding a purchase at merchant X. Node 4 would indicate the generation of the merchant cluster W & X showing that two of the three consumers made purchases at both merchant W and merchant X. As can be easily seen, merchant clusters X & Y and X & Z can not be generated using the first classification tree of Fig. 1. Figs. 2 and 3 show classification trees capable of generating merchant clusters X & Y and X & Z, respectively, but incapable of simultaneously generating either of the remaining two merchant clusters. Not shown are at least four other classification trees necessary to demonstrate that other clusters of merchants are not merchant clusters.

This example clearly demonstrates that no one classification tree is capable of generating all the merchant clusters and multiple classification trees are necessary to generate all the merchant clusters, which is contrary to the teaching of Zhang. Furthermore, these classification trees do not even generate merchant clusters at the terminal nodes (nodes 4-7), because the merchant clusters are defined by the path taken to arrive at the terminal node. Therefore, as demonstrated no proper application of the classification tree methodology of Zhang could be used with the method and system of Lazarus.

Regarding the present invention, this example further indicates that even an improper application of the classification trees of Zhang to the system and method of Lazarus produces 1) non-unique consumers in the merchant clusters, since the same consumer may be included in multiple merchant clusters; 2) no comparison of the classification trees, since no one classification tree can generate a complete set of merchant clusters; and 3) multiple classification trees necessary to generate all the merchant clusters, the number of classification trees required is dependent on the number of merchants in the transaction data.

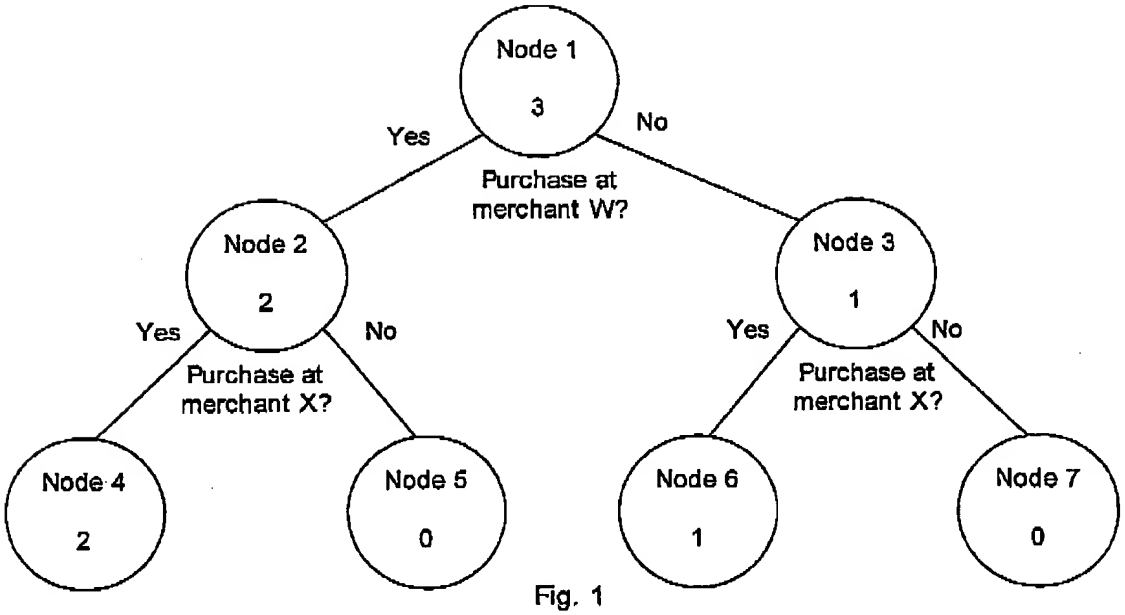

Fig. 1

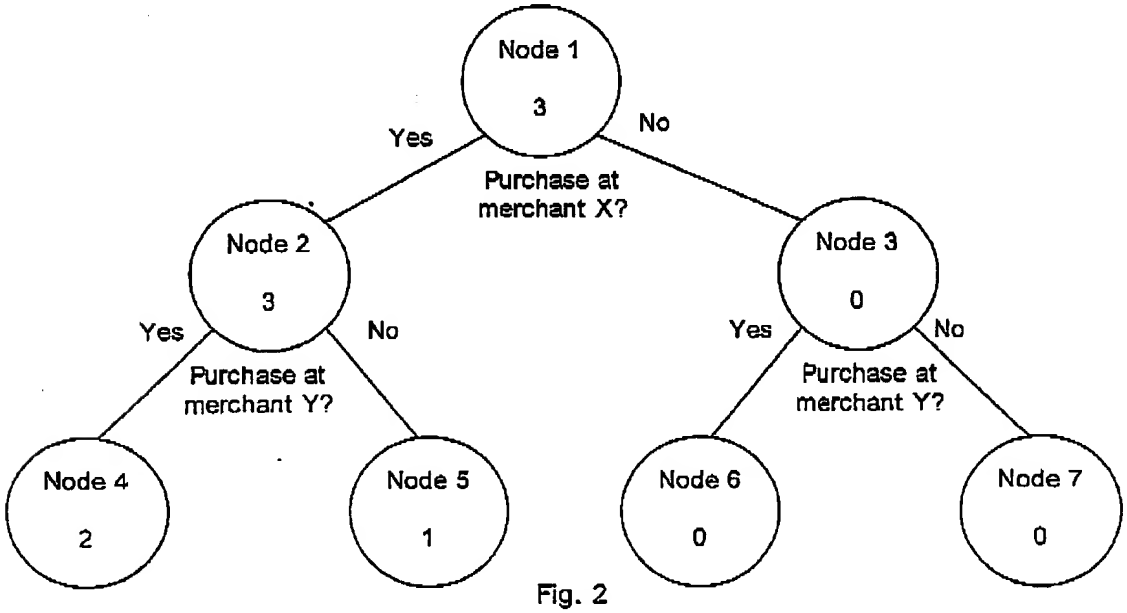

Fig. 2

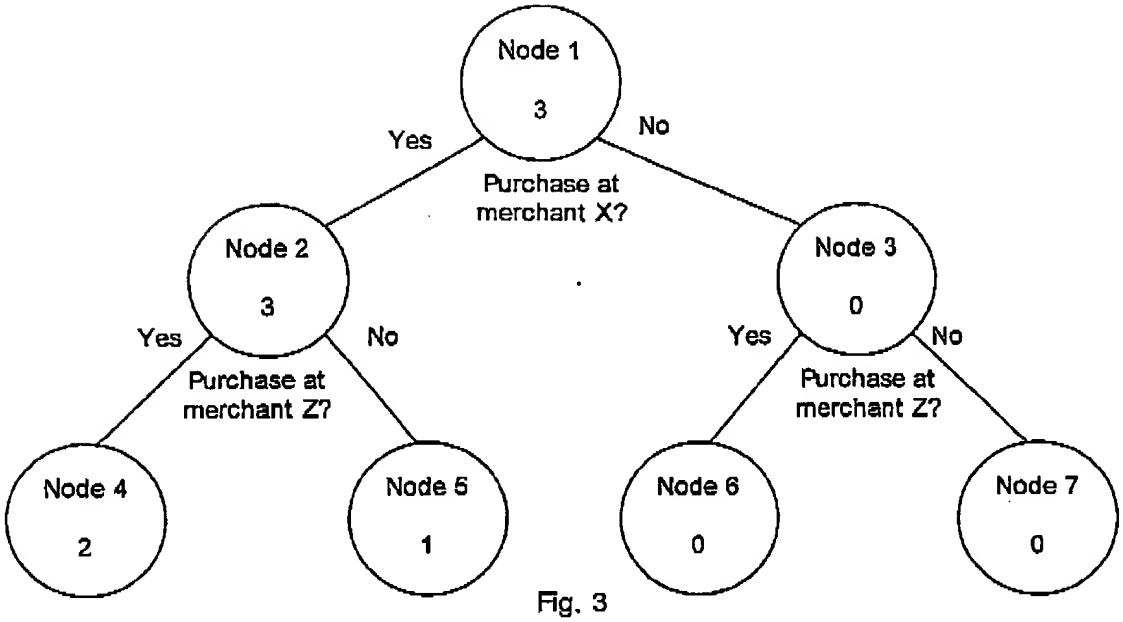

Fig. 3

CONCLUSION

The other cited art of record has been reviewed, and it is believed that the claims, as amended, patentably distinguish thereover.

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and rejections have been traversed, rendered moot, and/or accommodated, and that now pending claims 1-13 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned at 619-231-3666.

Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

Respectfully submitted,

Date: December xx, 2005

By: _____

Bernard L. Kleinke
Attorney for Applicant
Registration No. 22,123

DUCKOR SPRADLING METZGER & WYNNE
A Law Corporation
401 West A Street, Suite 2400
San Diego, California 92101-7915
Telephone No.: 619.231.3666
Facsimile No.: 619.231.6629
Email Address: kleinke@dsmwlaw.com